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A NEW SPECIES OF *MEGALOMYRMEX* FROM THE CHILEAN ANDES (FORMICIDAE, HYMENOPTERA)

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The genus *Megalomyrmex* has generally been thought of as associated with the wet tropical rain-forests of the New World. Members of the *goeldii* species-group in particular forage openly on the rain-forest floor and tend Homoptera on low bushes. It was thus a considerable surprise to receive a few specimens of a *goeldii* group species collected only 25 miles from the crest of the Andes in Chile. This is a new species, and its discovery extends the genus into a new habitat.

The specimens under study were found by Mr. E. Ackerman at Pachon Peak (Cerro Pachon), near La Serena, Coquimbo Province, Chile, at an altitude of 8500 ± 100 feet. The collection site is a rather flat hill crest with sparse low shrub cover; the substrate is andesite boulders resting on andesite rubble and soil. The colonies, Mr. Ackerman notes, were populous and by no means rare. A few live workers were sent to Dr. Caryl P. Haskins of the Carnegie Institution of Washington, who placed the workers in a laboratory nest; a few eggs were laid, from which three larvae were reared. All the material was later sent to me; this consisted of four live workers and three preserved larvae. My thanks are offered to Dr. Haskins for allowing me to study this interesting species.

Measuring techniques and abbreviations quoted below follow the system of Brown (1) while certain other terminology follows Ettershank (2).

Megalomyrmex bicolor n. sp.

Holotype worker (measurements in millimeters; those for two paratype workers are enclosed in parentheses): total length, TL 4.8 (4.6, 4.4), head length, HL 1.04 (0.98, 0.94), length closed mandibles, ML 0.24 (0.22, 0.20), alitrunk length, WL 1.34 (1.32, 1.26), head width, HW 1.00 (0.92, 0.88). Cephalic index, CI = 100 HW/HL = 96 (94, 94), mandibular index = 100 ML/HL

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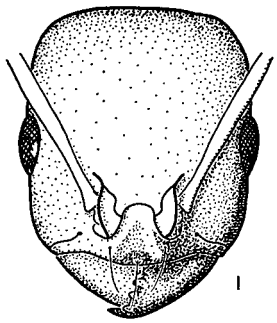

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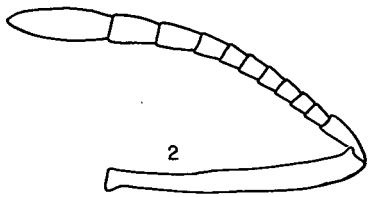

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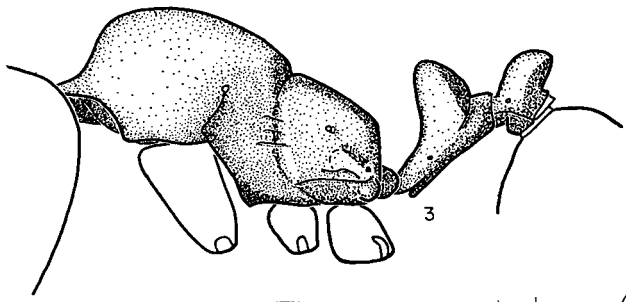

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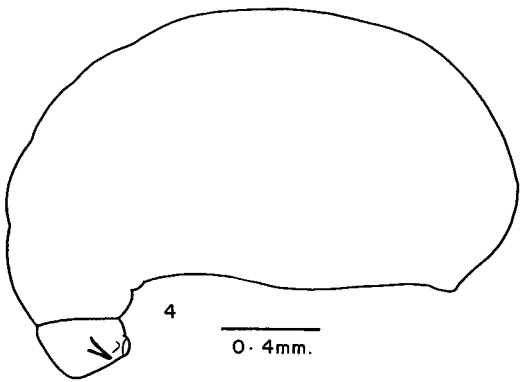

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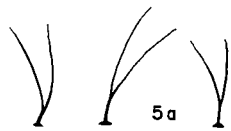

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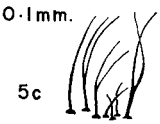

5c

ETTERSHANK — MEGALOMYRMEX

= 23 (22, 21). A fourth paratype worker was dissected and not measured.

This species is smaller than the other *goeldii* group species. The head (fig. 1) in dorsal view is rather more square in shape. The eyes are large, about 15 ommatidia high and 8 wide, and their black color contrasts strongly with the golden-brown ground color of the head. Antennae 12-segmented with a weak 3-segmented club (fig. 2). Clypeus strongly convex with a slight median sulcus, giving a weakly bicarinate effect. Median seta present, but variable in position around the midpoint of the oral margin of the clypeus; one pair of intercarinal setae present; first paracarinal setae well developed, higher paracarinal setae weaker. A few strong lateral setae present. Lateral areas of clypeus and oral margin of median area concolorous with mandibles. Mandibles with dental formula 1 + 4, masticatory margin more darkly colored, brown black, rest of mandible red-brown. Palpal formula 4, 3.

Alitrunk (fig. 3) of normal worker form. Promesonotal suture very distinct on the pleurae to the height of the spiracle, curving forward and then posteriorly; indistinct laterally above the spiracle and on the dorsum. Metanotal groove distinct, impressed on the dorsum and on the pleurae. Faint grooves separate the anepisternum from the notum above and the katepisternum below. Mesothoracic dorsum narrowing rapidly above, quite distinctly compressed at the metathoracic groove. Propodeum with angle distinct but rounded; declivity distinctly impressed. Propodeal spiracle small, round. Inferior propodeal plates large, semicircular. Metapleural glands large, very distinct, surmounted postero-ventrally by a rounded protuberance bearing the gland opening.

Petiole and postpetiole of normal *Megalomyrmex* form, with nodes high and rounded (see fig. 3). Subpetiolar process dentiform, distinct; anterior subpostpetiolar process distinct, posterior process slight; nodes not particularly broad above. Gaster biconvex in profile, attached at its most anterior end, in life normally carried with its long axis inclined downward so that the posterior end just clears the substrate.

Smooth shining ants, bearing a few faint and several distinct rugae on the mesokatepisternum and metapleuron. Posterodorsal flange of the postpetiole finely granulose. Head, alitrunk and gaster bearing sparse, long, white setae. Head (except as noted earlier), alitrunk,

EXPLANATION OF PLATE 4

Megalomyrmex bicolor, n. sp., Worker: Fig. 1, head, dorsal full-face view. Fig. 2, antenna. Fig. 3, alitrunk and nodes, lateral view. Larva: Fig. 4, lateral profile. Fig. 5, setae (see discussion in text); a, dorsal and lateral abdominal; b, of head and prothorax; c, of ventral abdominal tufts.

petiole and postpetiole golden brown, with a narrow margining of darker brown ventrally on the alitrunk; gaster brown-black, the sheen of the rest of the body being reduced noticeably by a fine shagreening over all the gaster.

Malpighian tubules 5 (one worker dissected), the tips of the tubules being attached to the rectum (cryptonephric).

Larvae: Three larvae were reared from worker-laid eggs and were presumably genetically male. A profile drawing of the larva is shown in fig. 4, and is essentially similar to that of *M. symmetochus* shown by G. C. and J. Wheeler (3). The head and prothoracic dorsum bear simple, slightly curved setae of the type shown in fig. 5b. The remaining body segments dorsally and laterally bear deeply cleft setae of the type seen in fig. 5a, while ventrally on each abdominal segment are paired clusters of setae of mixed types: short simple; long simple; and long deeply bifid, as shown in fig. 5c. In their characterization of *Megalomyrmex* larvae, the Wheelers (loc. cit.) state that only simple setae are present — short ones on the head, long ones on the body — and that the ventral and lateral surfaces of the abdomen are nearly naked. This diagnosis is based on *M. symmetochus,* a member of the *modestus* species group. Further comparative study is required, but perhaps this setal character represents another fundamental difference between the two species groups.

Disposition of Types: Holotype worker, three paratype workers (one dissected) and three larvae have all been deposited in the collection of the Museum of Comparative Zoology, Cambridge, Mass., under type number 31139.

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